

CLAIMS

What is claimed is:

1. A system to provide a determination of an alignment of a prosthetic bearing in an acetabular prosthesis, the system comprising:
 - a trial shell having an attachment device thereon; and
 - an attachment member moveable between a locating position and a fastened position to selectively and operably interconnect said trial shell to the acetabular prosthesis at said attachment device;wherein said trial shell is moveable in one degree of freedom around an axis defined by said attachment member in said locating position and substantially immobile relative to the acetabular prosthesis in said fastened position.
2. The system of claim 1, wherein the acetabular prosthesis includes:
 - an acetabular cup generally defining a portion of a hollow sphere and having a bore therein, said attachment member engaging said bore in said locating position and said fastened position.
3. The system of claim 1 wherein said attachment member includes:
 - an attachment end engaged with said bore;
 - a central portion extending between said attachment device; and
 - an engagement end for manipulating said attachment member between said locating and said fastened position.

4. The system of claim 3, further comprising:
a locking member adapted to engage said attachment member to operably couple said attachment member and said trial shell.
5. The system of claim 1 wherein the acetabular cup includes an outer rim defining an acetabular cup plane and said trial shell includes an outer rim defining a trial shell plane, wherein the location of said attachment device determines a predetermined angle said trial shell plane is oriented from the acetabular cup plane.
6. The system of claim 5 wherein said predetermined angle is between 0 and 40 degrees.
7. The system of claim 1 wherein said attachment device includes a passage incorporated on said trial shell for receiving said attachment member.

8. A system to provide a determination of an alignment of a prosthetic bearing in an acetabular prosthesis, the system comprising:

a first trial shell defining a first trial shell plane and having a first attachment device thereon;

a second trial shell defining a second trial shell plane and having a second attachment device thereon; and

an attachment member moveable between a locating position and a fastened position to selectively and alternatively interconnect each of said first and second trial shell to the acetabular prosthesis at said respective attachment device, each of said first and second trial shell moveable in one degree of freedom around an axis defined by said attachment member in said locating position;

wherein said first trial shell plane is oriented at a first angle from an acetabular cup plane in said locating position and said second trial shell plane is oriented at a second angle from said acetabular cup plane in said locating position, said second angle distinct from said first angle.

9. The system of claim 8 wherein said first attachment device is located at a distinct location on said first trial shell from said second attachment device on said second trial shell.

10. The system of claim 8, wherein the acetabular prosthesis includes:
an acetabular cup generally defining a portion of a hollow sphere and having a bore therein, said attachment member engaging said bore in said locating

position and said fastened position.

11. The system of claim 8, wherein said attachment member includes:
an attachment end engaged with said bore;
a central portion extending between said attachment device; and
an engagement end for manipulating said attachment member between
said locating and said fastened position.

12. The system of claim 8, further comprising:
a locking member adapted to engage said attachment member to
operably couple said attachment member and one of said first and second trial shell.

13. The system of claim 8, further comprising a third trial shell defining a third
trial shell plane and having a third attachment device thereon, said third trial shell
plane defining a third distinct angle with said acetabular cup plane from said first and
second trial shell plane when assembled in said locating position.

14. The system of claim 13 wherein said first, second and third angle is
between 0 and 40 degrees.

15. The system of claim 8 wherein said attachment device includes a
passage incorporated on said first and second trial shell for receiving said attachment
member.

16. A system to provide a determination of an alignment of a prosthetic, the system comprising:

an acetabular prosthesis;

a trial shell having an attachment device thereon; and

an attachment member moveable between a locating position and a fastened position to selectively and operably interconnect said trial shell to said acetabular prosthesis at said attachment device;

wherein said trial shell is moveable in one degree of freedom around an axis defined by said attachment member in said locating position and substantially immobile relative to said acetabular prosthesis in said fastened position.

17. The system of claim 16, wherein said acetabular prosthesis includes:

an acetabular cup generally defining a portion of a hollow sphere and having a bore therein, said attachment member engaging said bore in said locating position and said fastened position.

18. The system of claim 16 wherein said attachment member includes:

an attachment end engaged with said bore;

a central portion extending between said attachment device; and

an engagement end for manipulating said attachment member between said locating and said fastened position.

19. The system of claim 18, further comprising:
a locking member adapted to engage said attachment member to operably couple said attachment member and said trial shell.
20. The system of claim 16 wherein the acetabular cup includes an outer rim defining an acetabular cup plane and said trial shell includes an outer rim defining a trial shell plane, wherein the location of said attachment device determines a predetermined angle said trial shell plane is oriented from the acetabular cup plane.
21. The system of claim 20 wherein said predetermined angle is between 0 and 40 degrees.
22. The system of claim 16 wherein said attachment device includes a passage incorporated on said trial shell for receiving said attachment member.

23. A method of implanting an acetabular prosthesis in an acetabulum and providing a liner in the acetabular prosthesis in a selected orientation, the method comprising:

implanting the acetabular prosthesis;

disposing a first trial shell in said acetabular prosthesis, said first trial shell having an outer dimension defining a first plane and extending at a first angle from said acetabular prosthesis;

orienting said first trial shell having one degree of freedom in a first orientation;

fixing said first trial shell in said first orientation; and

moving a femur through a range of motion relative to the first trial shell.

24. The method of claim 23 further comprising:

removing said first trial shell;

disposing a second trial shell in said acetabular prosthesis, said second trial shell having an outer dimension defining a second plane and extending at a second angle from said acetabular prosthesis, said second angle distinct from said first angle;

orienting said second trial shell having one degree of freedom in a second orientation;

fixing said second trial shell in said second orientation; and

moving said femur through a range of motion relative to said second trial shell.

25. The method of claim 23 wherein orienting said first trial shell includes rotating said first trial shell around an attachment member selectively coupling said first trial shell to the acetabular prosthesis.

26. The method of claim 25 wherein fixing the first trial shell includes actuating said attachment member into a fastened position wherein said first trial shell is substantially immobile relative to the acetabular prosthesis.

27. The method of claim 23, further comprising:
placing a head extending from said femur in said first trial shell;
moving said femur through a range of motion while maintaining said head in said first trial shell; and
determining the presence of contact between said femur and said first trial shell.

28. A method of implanting an acetabular prosthesis in an acetabulum and providing a liner in the acetabular prosthesis in a selected orientation, the method comprising:

implanting the acetabular prosthesis, the acetabular prosthesis defining an acetabular cup plane;

disposing a first trial shell in said acetabular prosthesis, said first trial shell having an outer dimension defining a first plane and extending at a first angle from said acetabular prosthesis;

orienting said first trial shell having one degree of freedom in a first orientation;

fixing said first trial shell in said first orientation;

determining the presence of contact between a femur and said first trial shell; and

replacing said first trial shell with a second trial shell based on said determination, said second trial shell having an outer dimension defining a second plane and extending at a second angle from said acetabular cup plane, said second angle distinct from said first angle.

29. The method of claim 28 wherein determining the presence of contact includes:

placing a head extending from said femur in said first trial shell;

moving said femur through a range of motion while maintaining said head in said first trial shell; and

determining the presence of contact between said femur and said first trial shell.

30. The method of claim 28 wherein orienting said first trial shell includes rotating said first trial shell around an attachment member selectively coupling said first trial shell to the acetabular prosthesis.

31. The method of claim 28 wherein disposing a first trial shell includes:
placing said first trial cup in the acetabular prosthesis;
aligning a first attachment device of said first trial shell with a bore in the acetabular prosthesis; and
engaging an attachment member with said bore thereby coupling said first trial shell with the acetabular prosthesis.

32. The method of claim 31 wherein fixing said first trial shell includes actuating said attachment member into a fastened position wherein said first trial shell is substantially immobile relative to the acetabular prosthesis.

33. The method of claim 31 wherein replacing said first trial shell includes:
removing said attachment member from engagement with said first trial shell and the acetabular prosthesis;
removing said first trial cup from the acetabular prosthesis;
placing said second trial cup in the acetabular prosthesis;

aligning a second attachment device of said second trial shell with said bore; and

engaging said attachment member with said bore thereby coupling said second trial shell with the acetabular prosthesis.